49. A method according to claim 48, wherein the bundle further comprises alignment members effective for aligning wafers with one another.

50. A method according to claim 48, wherein each wafer comprises embedded information spatially separate from said array members.

51. A method according to claim 48, wherein the array members are disposed on the surface of the lumen.

52. A method according to claim 48, wherein array members completely fill the lumen and form part of the first and second major surfaces.

53. A method according to claim 48, wherein the array members are cross-sectioned perpendicular to their alignment.

54. A method according to claim 48, wherein the array members are cross-sectioned at an angle of 10 to 80 degrees or 100 to 170 degrees to their alignment.

55. A method according to claim 48, wherein the array members are cross-sectioned by a smooth planar cut.

56. A method according to claim 48, wherein the array members are cross-sectioned by a non-planar cut.

57. A method according to claim 56, wherein the surface area of array members exposed by cross-sectioning is increased over that provided by a smooth, planar cut.

58. A method according to claim 48, wherein structural members are comprised of a plastic, a glass, a metal or a ceramic.

10 59. A method according to claim 58, wherein structural members are comprised of a glass.

11 60. A method according to claim 58, wherein structural members are comprised of a plastic.

12 61. A method according to claim 60, wherein the plastic is a polycarbonate, polyethylene, polymethyl methacrylate, polystyrene, a copolymer of polystyrene, polysulfone, polyvinylchloride, polyester, polyamide, polyacetal, polyethyleneterephthalate, polytetrafluoroethylene or polyurethane.

13 62. A method according to claim 61, wherein the plastic is a polycarbonate, polyethylene, polystyrene, a copolymer of polystyrene, polysulfone or polyvinylchloride.

63. A method according to claims 48, wherein the array members are spaced about 1.0 to about 1,000 micrometers apart.

64. A method according to claim 48, wherein the array members have a cross-sectional area of about 1.0 to about 1,000,000 $\mu m^2$.

65. A method according to claim 48, wherein the density of array members in the array is about 250 to about 2,500,000 array members per square centimeter of cross sectional surface area of the array.

66. A method according to claim 48, wherein the density in the array is about 10 to about 100,000 array members per square centimeter of total surface area at the assay.

67. A method according to claim 48, wherein there are about 100 to about 2,500,000 aligned array members.

68. A method according to claim 48, wherein there are about 100 to 2,500,000 different aligned array members.

69. A method according to claim 48, wherein cross-sectioning produces sections about 2.5 to about 2,500 micrometers thick.

70. A method according to claim 48, wherein at least two array members are different from one another.

71. A method according to claim 48, wherein the array members comprise analyte binding reagents.

72. A method according to claim 48, wherein the array members comprise analyte binding reagents that hybridize to DNA or RNA having specific nucleotide sequences.

73. A method according to claim 72, wherein the sequence specific binding reagents are polynucleotides, peptide-nucleic acids or polyamides.

74. A method according to claim 73, wherein the sequence specific binding reagents are oligonucleotides.

75. A method according to claim 48, wherein the array members comprise analyte binding reagents that bind specific polypeptides.

76. A method according to claim 75, wherein the polypeptide-specific binding reagents are polyclonal antibodies, monoclonal antibodies, single chain antibodies, or antigen-binding fragments of antibodies

77. A method according to claim 71, wherein analyte binding reagents are one or more of a nucleic acid, a polynucleotide, a DNA, an RNA, an

oligonucleotide, a protein-nucleic acid, an aptamer, a ribozyme, a nucleic acid-binding polyamide, a protein, a peptide, a polypeptide, a glycoprotein, an antibody, an antibody-derived polypeptide, a receptor protein, a fusion protein, a mutein, a lipid, a polysaccharide, a lectin, a ligand, an antigen or a hapten.

78. A method according to claim 48, wherein the array is used to carry out an immunoassay, a hybridization assay, a ligand-binding assay or receptor-binding assay, or a substrate analog affinity assay.

79. A method according to claim 71, wherein binding to the analyte binding reagents is detected using radioactivity, fluorescence, phosphorescence or chemiluminescence.

80. A wafer comprising a plurality of array members in an array, wherein

the array members are homogenous compositions disposed within lumen of structural members, each array member being in a separate lumen continuously enclosed in a structural member and extending from a first to a second surface of the wafer; and

each structural member and array member being aligned in the wafer parallel to an alignment axis and each occupying a defined position in the two dimensions orthogonal thereto.

81. A wafer according to claim 80, further comprising alignment members effective for aligning wafers with one another.

82. A wafer according to claim 80, further comprising embedded information spatially separate from said array members.

83. A wafer according to claim 80, wherein the array members are disposed on the surface of the lumen.

84. A method according to claim 80, wherein array members completely fill the lumen and form part of the first and second major surfaces.

85. A wafer according to claim 80, wherein the array members are spaced about 1.0 to about 1,000 micrometers apart.

86. A wafer according to claim 80, wherein the array members have a cross-sectional area of about 1.0 to about 1,000,000 $\mu m^2$.

87. A wafer according to claim 80, wherein the density of array members in the array is about 250 to about 2,500,000 array members per square centimeter of cross sectional surface area of the array.

88. A wafer according to claim 80, wherein the density in the array is about 10 to about 100,000 array members per square centimeter of total surface area of the array.

89. A wafer according to claim 80, wherein there are about 100 to about 2,500,000 array members in the array.

90. A wafer according to claim 80, wherein there are about 100 to 2,500,000 different array members in the array.

91. A wafer according to claim 80, wherein cross-sectioning produces sections about 2.5 to about 2,500 micrometers thick.

92. A wafer according to claim 80, wherein the array comprises analyte binding reagents that hybridize to DNA or RNA having specific nucleotide sequences.